Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 – 69. (Canceled)

70. (Currently Amended) A process for the parallel separation of a multiplicity of individual samples in a separation medium, which process comprises the following steps:

(a) a first space which essentially extends across all three space coordinates contains the separation medium, which fills this first space in the direction of all three space coordinates and is permeable for the individual samples,

(b) a multiplicity of individual samples is arranged close to an interface of the first space,

(c) the individual samples are essentially arranged in such a way that the positions of their centers of gravity can be described by two coordinates,

(d) in the direction of a third coordinate and under the influence of one or more physical or chemical parameters, a multiplicity of the individual samples migrate through the separation medium in the ~~joint~~ first space to realize a separation into fractions, and

(e) for a multiplicity of individual samples being two-dimensionally arranged and being separated in the ~~joint~~ first space, the sample fractions are detected and, alternatively or additionally, preparatively collected.

71. (Previously Presented) The process as claimed in claim 70, wherein during migration, the individual samples are detected in selected regions within the separation medium or close to an interface of the separation medium.

72. (Previously Presented) The process as claimed in claim 70, wherein electrode elements are arranged in such a way that, when applying an electrical voltage, the individual samples

migrate through the separation medium essentially perpendicularly to the plane of their application.

73. (Previously Presented) The process as claimed in claim 70, wherein in the first space a temperature distribution is generated and maintained which is essentially independent of a coordinate running perpendicular to the direction of sample migration.

74. (Previously Presented) The process as claimed in claim 70, wherein the sample is applied by two-dimensionally arranging the individual samples in or on an essentially two-dimensional sample plate, which can be introduced into the separating device from the outside or which is part of the separation medium.

75. (Previously Presented) A process of distributing particles in or on a sample plate, wherein a device or a process is used in which the particles are distributed according to measured physical or chemical properties.

76. (Previously Presented) The process as claimed in claim 75, wherein the two-dimensional distribution of particles is carried out using a device or process in which said particles are distributed owing to measured properties.

77. (Previously Presented) The process as claimed in claim 75, wherein the two-dimensional distribution of the particles is carried out using a device or process in which the particles are distributed for example by a cell sorter or a fluorescence-activated cell sorter (FACS).

78. (Previously Presented) The process as claimed in claim 75, wherein the individual samples are multiplied from individual molecules or from a multiplicity of molecules.

79. (Previously Presented) The process as claimed in claim 78, wherein the individual samples are multiplied by cloning and subsequent selective propagation.

80. (Canceled)

81. (Previously Presented) The process as claimed in claim 77, wherein the individual samples are multiplied by means of PCR.

82. (Previously Presented) The process as claimed in claim 74, wherein the individual samples are arranged in or on a sample plate as fractions of a preseparation of one or more source samples(s).

83. (Previously Presented) The process as claimed in claim 82, wherein the sample plate consists of or contains a separation medium and the fractions are arranged by separating one or more samples in the sample plate.

84. (Previously Presented) The process as claimed in claim 83, wherein the samples for their part are fractions of one or more preceding separation(s) with different separation properties, which fractions have been transferred to the sample plate by preparative transfer.

85-86. (Canceled)

87. (Currently Amended) A device for carrying out the process as claimed in claim 70, wherein:

(a) the separating structure comprises a ~~hollow~~ first space which essentially extends across 3 space coordinates,

(b) the ~~hollow~~ first space is designed so as to be filled with a separation medium, which extends within the first space in the direction of all three space coordinates and is permeable for the individual samples,

(c) a device which enables a multiplicity of individual samples which are to be fractionated at an end face and which are essentially arranged two dimensionally in a plane to be delivered to the separation medium in the first space is assigned to the separating structure,

(d) the separating structure is designed in such a way that at least one or more of the following physical or chemical parameters can act on the samples: an electric field, a pressure gradient, an osmotic force, gravity, centrifugal force, and that the individual samples can migrate

within the separation medium in the first space in the direction of a third coordinate to realize a separation into fractions, and

(e) a device for detecting the sample fractions of a multiplicity of two dimensionally arranged individual samples or a device for preparatively collecting said sample fractions of a multiplicity of two-dimensionally arranged individual samples is assigned to the separating structure.

88. (Previously Presented) The device as claimed in claim 87, wherein an online detection apparatus which records emitted radiation only of an essentially planar detection area is assigned to the separating structure.

89. (Previously Presented) The device as claimed in claim 88, wherein a fraction-collecting device is assigned to the separating structure and which comprises:

(f) a transport mechanism for plates or layers, for example membranes, which are periodically changed by said transport mechanism at an interface of the separation body so that the sample fractions eluting there are bound on different plates or subareas of a layer or membrane, depending on the retention time, or

(g) a capillary array with inlets close to an interface of the separation medium and outlets via a fraction-collecting device, so that the sample fractions when eluting from the separation body can be directed through the capillary array out of the separating structure, is assigned to the separating structure.

90. (Currently Amended) The device as claimed in claim 88, wherein the separating structure is designed in such a way that

(h) electrodes are located on two sides (end sides) of the ~~hollow~~ first space,

(i) the spaces between electrodes and separation medium can be filled with a liquid,

(k) heat discharge at the end faces is ensured by a temperature-control device containing buffer medium as a heat transport medium which is moved radially from the center to the periphery or in the opposite direction.

91. (Previously Presented) The device as claimed in claim 90, wherein the ~~hollow~~ first space is thermally insulated in the radial direction.

92. (Canceled)

93. (Previously Presented) The device as claimed in claim 88, wherein a photodetection apparatus is provided which

(a) has an illumination apparatus which illuminates an essentially two-dimensional, planar detection area in the separation medium or close to an interface of said separation medium, and

(b) has an optical system which projects the detection area in the form of an image (two-dimensionally) onto an image detector.

94- 99. (Canceled)